

A NEW COMBINATION AND NEW SPECIES IN *GAMOCHAETA*
(ASTERACEAE: INULEAE) FROM CENTRAL AMERICA

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ABSTRACT

A new combination is proposed in the transfer of a Guatemalan endemic from *Gnaphalium* to *Gamochaeta*: ***Gamochaeta standleyi*** (Steerm.) Nesom. A new species, ***Gamochaeta irazuensis*** Nesom, is described from Costa Rica.

KEY WORDS: *Gamochaeta*, *Gnaphalium*, Asteraceae, Inuleae, Costa Rica, Guatemala.

In studies of *Gamochaeta* from North and Central America (Nesom 1990 and in prep.), one new combination among the Central American species is necessary. Additionally, a previously undescribed species from Costa Rica has come to light.

Gamochaeta standleyi (Steerm.) Nesom, *comb. nov.* BASIONYM: *Gnaphalium standleyi* Steerm., Publ. Field Mus. Nat. Hist., Bot. Ser. 23:99. 1944. TYPE: GUATEMALA. Dept. Huehuetenango: Sierra de los Cuchumatanes, region of Chermal, alpine meadows, ca 3300 m, 28 Dec 1940, P.C. Standley 81097 (HOLOTYPE: F!).

Gamochaeta standleyi is a diminutive, subcaulescent, fibrous rooted annual, apparently endemic to the high mountains of northwest Guatemala. It is most similar in its phyllary morphology to *Gamochaeta purpurea* (L.) Cabrera but has much smaller leaves, that are densely and closely tomentose on both surfaces. *Gamochaeta purpurea* is an uncommon adventive in México and Central America.

Espinosa (1985) has identified plants from the high volcanic peaks immediately east of México City as *Gnaphalium standleyi*, but these belong to a different species (Nesom, in prep.) than the Guatemalan endemic here transferred to *Gamochaeta*.

Gamochaeta irazuensis Nesom, *sp. nov.* TYPE: COSTA RICA. Volcán Irazu, 10,000-11,330 ft (3030-3430 m), 1 Dec 1937-1 Jan 1938, P.H. Allen 702 (HOLOTYPE: F!).

Gamochaeta americanae (Mill.) Wedd. foliis bicoloribus et phyllariis aurei-fuscis glabris similis sed duratione perenni, habitu ascendenti vel decumbenti, absentia foliorum basaliū, et foliis minoribus amplitudis comparate aequatae differt.

Perennials from woody, fibrous rooted rhizomes. Stems densely matted white tomentose, ascending or decumbent-ascending, the lower producing numerous adventitious roots. Leaves narrowly elliptic-obovate, 7-22 mm long, 2-5 mm wide, clasping, strongly bicolored, densely matted white tomentose beneath, glabrescent above. Capitulescence of compact, uninterrupted, terminal, spiciform clusters 1-4 cm long. Heads campanulate-cylindric, 1.5-2.0 mm wide; phyllaries in 3-4 strongly graduated series, golden-brown, hyaline, the inner 3.5 mm long, narrowly oblong with an ovate-lanceolate, brown, terminal appendage, the outermost widely ovate, 1/3-1/4 as long as the inner. Pistillate flowers 60-70. Hermaphroditic flowers 3-4, the corollas 2.2-2.4 mm long, glabrous; anthers tailed. Achenes 0.5-0.7 mm long, the surface densely invested with minute, rounded-conic, 2 celled, myxogenic trichomes; pappus bristles 17-21, basally united into a ring, easily caducous and released as a unit.

Known only from the type collection.

Gamochaeta irazuensis is similar to *G. americana* (Mill.) Wedd. in its bicolored leaves and completely glabrous, golden-brown phyllaries. The new species differs from the latter in its perennial duration, production of rhizomes, ascending-decumbent adventitious rooted stems, lack of persistent basal leaves, and smaller and relatively even sized cauline leaves. *Gamochaeta americana* is strictly annual, without rhizomes and produces a persistent rosette of basal leaves much larger than the cauline ones. Additionally, the pappus of *G. americana* can be seen under the compound scope to have a significantly more prolonged area of basal fusion than that of *G. irazuensis*.

Gamochaeta americana is widespread in México and Central America (Nesom 1990 and in prep.) and occurs at a wide range of elevations. Even at maximum elevations (up to 3200 m) for the species, however, it is always an annual. *Gamochaeta standleyi*, also, has either adopted or retained an annual duration in its adaptation to a high elevation habitat.

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